

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-16. (Cancelled)

17. (Currently amended) An apparatus for providing pressure support to a subject, the apparatus comprising:

a gas flow generating system adapted to provide a flow of gas;

a monitor configured to monitor characteristics associated with intrinsic pressure of breathing cycles of the subject before a sudden increase in a breathing rate and to store the monitored characteristics as a characteristic output; and

a controller configured to

determine an average intrinsic positive end-expiratory pressure over the monitored plurality of breathing cycles based on the characteristic output of the monitor, and

control the gas flow generating system to increase a pressure of the flow of gas to the subject, after the sudden increase in the breathing rate, to the determined average intrinsic positive end-expiratory pressure.

~~such that wherein~~ the pressure of the flow of gas delivered to the subject during the sudden increase in the breathing rate allows the subject to commence drawing in the gas immediately at the commencement of the inspiratory part of each breathing cycle.

18. (Previously presented) The apparatus as claimed in claim 17, wherein the controller is configured to control the gas flow generating system such that the pressure of the flow of gas delivered to the subject during the inspiratory phase of the breathing cycle is at a pressure greater than the average intrinsic positive end-expiratory pressure.

19. (Previously presented) The apparatus as claimed in claim 17, wherein the gas flow generating system includes a blower motor, and wherein the controller is configured to control the pressure provided by that gas flow generating system by controlling an operating speed of the blower motor.

20. (Previously presented) The apparatus as claimed in claim 17, wherein the monitor is located proximate to an airway of the subject.

21. (Previously presented) The apparatus as claimed in claim 20, further comprising:

a patient circuit having a first end operatively connected to the gas flow generating system and a second end; and

a patient interface operatively connected to the second end of the patient circuit, and wherein the monitor is operatively connected to the patient interface.

22. (Previously presented) The apparatus as claimed in claim 17, wherein the monitor is connected to the controller by a wire.

23. (Previously presented) The apparatus as claimed in claim 17, wherein the monitor includes a transmitter configured to transmit a wireless signal to the controller, and wherein the controller includes a receiver configured to receive the wireless signal.

24. (Previously presented) The apparatus as claimed in claim 17, wherein the monitor is a pressure transducer.

25. (Previously presented) The apparatus as claimed in claim 17, wherein the apparatus is portable and is adapted for use by an ambulatory subject.

26. (Previously presented) The apparatus as claimed in claim 17, wherein the gas flow generating system comprises an electrically powered blower motor.

27. (Withdrawn) Apparatus for providing pressure support to a subject, the apparatus comprising:

a gas flow generating system adapted to provide a flow of gas

monitoring means for monitoring characteristics associated with intrinsic pressure of breathing cycles of a subject before a sudden increase in a breathing rate and to store the monitored characteristics as a characteristic output;

a patient circuit having a first end operatively connected to the gas flow generating system and a second end;

a patient interface operatively connected to the second end of the patient circuit;

an exhaust valve operatively coupled to the patient interface so as to communicate an interior of the patient interface to ambient atmosphere through at least a portion of the patient interface; and

a controller configured to

determine an average intrinsic positive end-expiratory pressure over the monitored plurality of breathing cycles based on the characteristic output of the monitor, and

control the gas flow generating system to increase a pressure of the flow of gas to the subject, after the sudden increase in the breathing rate, to the determined average intrinsic positive end-expiratory pressure such that the pressure of the flow of gas delivered to the subject allows the subject to commence drawing in the gas immediately at the commencement of the inspiratory part of each breathing cycle, wherein the exhaust valve is

operable under control of the controller to control the pressure of the flow of gas in the patient interface.

28. (Withdrawn) The apparatus as claimed in claim 27, wherein the valve is a pressure regulating valve.

29. (Withdrawn) The apparatus as claimed in claim 27, wherein the gas flow generating system includes a blower motor, and wherein the controller controls the pressure provided by that gas flow generating system by controlling an operating speed of the blower motor.

30. (Currently amended) A method for relieving dyspnoea in a subject, the method comprising acts of:

delivering a flow of gas to an airway of a subject at a pressure greater than ambient;

monitoring characteristics associated with intrinsic pressure of a plurality of breathing cycles of the subject before a sudden increase in a breathing rate and storing the monitored characteristics as a characteristic output;

determining an average intrinsic positive end-expiratory pressure of the subject over the plurality of breathing cycles based on the monitored characteristic output; and

increasing the pressure of the flow of gas delivered to the subject during an expiratory phase of a breathing cycle to a pressure of the flow of gas to the subject, after

the sudden increase in the breathing rate, to the determined average intrinsic positive end-expiratory pressure,

~~such that wherein~~ the pressure of the flow of gas during the sudden increase in the breathing rate allowing the subject to commence drawing in the gas immediately at the commencement of the inspiratory part of each breathing cycle.